

I CLAIM:

1. A method for synchronizing a background action sequence with a foreground action sequence, the method comprising:

projecting said background action sequence on a rear-projection screen;

providing said foreground action sequence in front of said rear-projection screen; and

causing a change in said background action sequence as a function of and in accordance with action occurring in said foreground action sequence.

2. A method as claimed in claim 1, wherein said causing a change comprises having a human operator trigger said change.

3. A method as claimed in claim 2, wherein said human operator triggers said change as a result of a visual cue.

4. A method as claimed in claim 3, wherein said visual cue is given by a director.

5. A method as claimed in claim 1, wherein said projecting said background comprises projecting using a digital projector.

6. A method as claimed in claim 1, wherein said projecting said background comprises playing images from a video tape recorder.

7. A method as claimed in claim 1, wherein said projecting said background comprises projecting said background with animated characters.

8. A method for controlling a depth of field when filming a scene, the method comprising:

providing a rear-projection screen behind a subject in a foreground;

projecting an image onto said rear-projection screen to act as a background for said scene;

filming said scene including said foreground and said background; and

applying a varying degree of focus to a plurality of objects in said image as a function of a degree of focus of each of said objects for an intended distance between each of said objects and said subject.

9. A method as claimed in claim 8, wherein said applying a varying degree of focus comprises at least one of blending and overlaying at least two views to produce said image.

10. A method as claimed in claim 8, wherein said applying a varying degree of focus comprises changing a focus of all objects in said image.

11. A method as claimed in claim 10, wherein said applying a varying degree of focus comprises manually changing a degree of sharpness of said objects in said image.

12. A method as claimed in claim 10, wherein said applying a varying degree of focus comprises changing a scale of said

objects in said image with respect to said subject in said foreground.

13. A method as claimed in claim 10, wherein said applying a varying degree of focus comprises dynamically changing said focus during said filming said scene.

14. A method as claimed in claim 10, wherein said applying a varying degree of focus comprises moving a projector to change a distance between said projector and said rear-projection screen.

15. A method as claimed in claim 10, wherein said applying a varying degree of focus comprises moving a camera to change a distance between said camera and said projection screen.

16. A method as claimed in claim 10, wherein said applying a varying degree of focus comprises combining a movement of a projector to change a distance between said projector and said rear-projection screen and movement of a camera to change a distance between said camera and said projection screen, such that a satisfactory degree of focus is obtained.

17. A method as claimed in claim 10, wherein said applying a varying degree of focus comprises adding filtering lenses to a projector projecting said background image.

18. A method as claimed in claim 8, wherein said projecting an image comprises projecting an image using a high resolution projector.

19. A method as claimed in claim 8, wherein said projecting an image comprises projecting an image using a digital projector.

20. A method as claimed in claim 8, wherein said filming said scene comprises filming using a digital camera.

21. A method as claimed in claim 8, wherein said filming said scene comprises filming using a film camera.

22. A method for filming an action scene, the method comprising:

- providing a projector and a rear-projection screen on at least one trolley for motion in at least one direction;

- projecting an image onto said rear-projection screen to act as a background for said scene;

- providing foreground action in front of said rear-projection screen;

- filming said scene including said foreground and said background; and

- moving said projector and said screen along said at least one direction while filming said scene.

23. A method as claimed in claim 22, wherein said providing a projector and a rear-projection screen on at least one trolley comprises providing said projector and rear-projection screen on separate trolleys, wherein each of said separate trolleys move in said at least one direction.

24. A method as claimed in claim 23, wherein said separate trolleys move relative to each other.

25. A method as claimed in claim 22, further comprising providing a camera on a trolley for motion in said at least one direction, wherein said filming said scene comprises moving said camera in said at least one direction.

26. A method as claimed in claim 22, wherein said foreground action moves in said at least one direction and said moving said projector and said screen comprises following said foreground action.

27. A method as claimed in claim 22, wherein said projecting an image comprises projecting an image using a high resolution projector.

28. A method as claimed in claim 22, wherein said projecting an image comprises projecting an image using a digital projector.

29. A method as claimed in claim 22, wherein said filming said scene comprises filming using a digital camera.

30. A method as claimed in claim 22, wherein said filming said scene comprises filming using a film camera.

31. A method for synchronizing a background image with a foreground camera, the method comprising:

- recording said background image;
- providing a projector that will generate a continuously varying video image;
- projecting said background image onto a rear-projection screen using said projector; and

acquiring said background image with a foreground image using said foreground camera.

32. A method as claimed in claim 31, wherein said providing a projector comprises providing a liquid-crystal-display projector.

33. A method as claimed in claim 31, wherein said recording said background image comprises recording said background image using an acquisition rate that corresponds to an acquisition rate of said foreground camera.

34. A method as claimed in claim 31, wherein said projecting said background image comprises projecting using a high resolution projector.

35. A method as claimed in claim 31, wherein said projecting said background image comprises projecting using a digital projector.

36. A method as claimed in claim 31, wherein said acquiring said background image with a foreground image comprises filming using a digital camera.

37. A method as claimed in claim 31, wherein said acquiring said background image with a foreground image comprises filming using a film camera.